32

CLAIMS

1. (Amended)

An information processing apparatus for connecting to a network to which a plurlaity of devices are connected, and executing a process of generating an access control list, characterized by comprising:

a reception unit for receiving a packet from a client that serves as an access requesting apparatus through the network;

a storage unit storing a MAC list in which information of a MAC list for one client is set as registration data for one slot;

a registration permission judgment unit for confirming whether or not there is an empty slot in the MAC list and judging as that a registration is permitted only if there is the empty slot, in a client registration process based on a received packet at the reception unit; and

a registration processing unit for acquiring data containing a client MAC address from the received packet and executing a registration process for the MAC list, in accordance with a judgment of the registration permission by the registration permission judgment unit.

2. (No Amendment)

The information processing apparatus according to claim 1, characterized in that:

the registration processing unit is configured to acquire a sender MAC address contained in a header field of the packet received from the client and adopts the acquired sender MAC address as registration information of the MAC list.

3. (No Amendment)

The information processing apparatus according to claim 1, characterized by further comprising:

a packet analysis unit for judging whether the packet received from the client is a registration processing request packet or a data processing request packet; and

characterized in that:

if the packet received from the client is the registration processing request packet, the registration permission judgment unit executes a registration permission judgment process in

ART 19 Amend

accordance with a presence/absence detection process for the empty slot in the MAC address; and

the registration processing unit executes a registration process in accordance with the judgment of the registration permission by the registration permission judgment unit.

4. (No Amendment)

The information processing apparatus according to claim 1, characterized in that:

if the packet received from the client is the data processing packet, the registration permission judgment unit executes the registration permission judgment process in accordance with the presence/absence detection process for the empty slot in the MAC address; and

the registration processing unit executes the registration process for the MAC list in accordance with the judgment of the registration permission by the registration permission judgment unit, by acquiring the data containing the client MAC address from the received data processing request packet.

5. (No Amendment)

The information processing apparatus according to claim 1, characterized by further comprising:

a control unit for executing a close process for the empty slot under a condition that a lapse time from a setting process for the empty slot in the MAC list exceeds a predetermined threshold time.

6. (No Amendment)

The information processing apparatus according to claim 1, characterized in that:

the registration permission judgment unit is confiugred to execute a process of judging whether or not a data processing request sequence from the client correctly and reliably executes a sequence in conformity with a UPnP protocol; and

the registration processing unit is configured to execute the registration process for the MAC list in accordance with a judgment that the data processing request sequence from the client correctly and reliably executes the sequence in conformity with a UPnP protocol, by acquiring the data containing the client MAC address from the received data processing request packet.

art 19

7. (No Amendment)

The information processing apparatus according to claim 1, characterized in that:

the registration permission judgment unit judges whether a content directory service (CDS) request process in the sequence in conformity with the UPnP protocol is executed or not in response to a data processing request from the client; and

the registration processing unit is configured to execute the registration process for the MAC list in accordance with a judgment that the content directory service (CDS) request process is executed, by acquiring the data containing the client MAC address from the received data processing request packet.

8. (No Amendment)

The information processing apparatus according to claim 1, characterized in that:

the registration processing unit is configured to execute the registration process for the MAC list by acquiring the MAC address and identification information different from the MAC address stored in the packet received from the client.

9. (No Amendment)

The information processing apparatus according to claim 8, characterized in that:

the identification information different from the MAC address is identification information of global unique ID information or key information set to a client apparatus.

10. (Amended)

An information processing apparatus that serves as a client for executing an access request to a server connected to a network, characterized by comprising:

a process activation detection unit for detecting of an activation of a communication process in the network;

a control unit for executing a process of generating and transmitting an access control list registration processing request packet explicitly indicating a registration request in a MAC list possessed by the server, by storing own MAC address in header information with using detected information, which is detected by the process activation detection unit, as a trigger.

11. (No Amendment)

The information processing apparatus according to claim 10, characterized in that:

art 19

the control unit is configured to execute a process of generating a packet storing the identification information of the global unique ID information or the key information set to the client apparatus, in a process of generating the access control list registration processing request packet.

12. (No Amendment)

The information processing apparatus according to claim 10, characterized in that:

the control unit is configured to transmit the access control list registration processing request packet by broadcast transmission or multicast transmission.

13. (Amended)

A server client system including a server for connecting to a network to which a plaurlity of devices are connected and receiving an access request, and a client for executing the access request, characterized in that:

the client is configured to detect an activation of a communication process in the network based on a power-on process or an activation of a specific application, and generating and transmitting an access control list registration processing request packet storing own MAC address in header information by using the detected information as a trigger; and

the server is configured to receive the access control registration processing request packet from the client through the network, confirm whether or not there is an empty slot in a MAC list which sets information including a MAC address of one client as registration data for one slot, and execute a registration process of registering client information based on the packet in the MAC list, only if there is the empty slot.

14. (No Amendment)

The client server system according to claim 13, characterized in that:

the server is configured to execute a process of acquiring a sender MAC address contained in a header filed on a packet received from the client and adopt the acquired sender MAC address as registration information for the MAC list.

15. (Amended)

An information processing method of executing a process of generating an access

Art 19

control list, characterized by comprising:

a reception step of connecting to a network to which a plurality of devices are connected, and receiving a packet from a client that serves as an access requesting apparatus;

a registration permission judgment step of judging whether or not there is an empty slot in a MAC list in which information of a MAC list for one client is set as registration data for one slot; and

a registration processing step of acquiring data containing a client MAC address from the received packet and executing a registration process for the MAC list, in accordance with a judgment at the registration permission judgment step that there is the empty slot.

16. (No Amendment)

The information processing method according to claim 15, characterized in that:

the registration processing step execute a process of acquiring a sender MAC address contained in a header field of the packet received from the client, and adopting the acquired sender MAC address as registration information of the MAC list.

17. (No Amendment)

The information processing method according to claim 15, characterized by further comprising:

a packet analysis step of judging whether the packet received from the client is a registration processing request packet or a data processing request packet; and

characterized in that:

if it is judged at the packet analysis step that the packet received from the client is the registration processing request packet, the registration permission judgment step executes a registration permission judgment process in accordance with a presence/absence detection process for the empty slot in the MAC address.

18. (No Amendment)

The information processing method according to claim 15, characterized in that:

if the packet received from the client is the data processing packet, the registration permission judgment step executes the registration permission judgment process in accordance with the presence/absence detection process for the empty slot in the MAC address; and

art 19

the registration processing unit step executes the registration process for the MAC list in accordance with the judgment of the registration permission by the registration permission judgment unit, by acquiring the data containing the client MAC address from the received data processing request packet.

19. (No Amendment)

The information processing method according to claim 15, characterized by further comprising:

a control step of executing a close process for the empty slot under a condition that a lapse time from a setting process for the empty slot in the MAC list exceeds a predetermined threshold time.

20. (No Amendment)

The information processing method according to claim 15, characterized in that:

the registration permission judgment step includes a step of judging whether or not a data processing request sequence from the client correctly and reliably executes a sequence in conformity with a UPnP protocol; and

the registration processing step executes the registration process for the MAC list by acquiring the data containing the client MAC address from the packet received from the clientin in accordance with a judgment that the data processing request sequence from the client correctly and reliably executes the sequence in conformity with a UPnP protocol, .

21. (No Amendment)

The information processing method according to claim 15, characterized in that:

the registration permission judgment step includes a step of judging whether a content directory service (CDS) request process in the sequence in conformity with the UPnP protocol is executed or not in response to a data processing request from the client; and

the registration processing step executies the registration process for the MAC list in accordance with a judgment that the content directory service (CDS) request process is executed, by acquiring the data containing the client MAC address from the packet received from the client.

22. (No Amendment)

$art 19$

The information processing method according to claim 15, characterized in that:

the registration processing step executes the registration process for the MAC list by acquiring the MAC address and identification information different from the MAC address stored in the packet received from the client.

23. (No Amendment)

The information processing method according to claim 22, characterized in that:

the identification information different from the MAC address is identification information of global unique ID information or key information set to a client apparatus.

24. (Amended)

An information processing method for an information processing apparatus that serves as a client for executing an access request to a server connected to a network, characterized by comprising:

a trigger detection step of detecting an activation of a communication process in the network based on a power-on process of the information processing apparatus or a specific application activation process; and

a packet generation and transmission process step of generating and transmitting an access control list registration processing request packet explicitly indicating a registration request in a MAC list possessed by the server, under a condition that the trigger information is detected, by storing own MAC address in header information.

25. (No Amendment)

The information processing method according to claim 24, characterized in that:

the packet generation and transmission process step executes a process of generating a packet storing the identification information of the global unique ID information or the key information set to the client apparatus, in a process of generating the access control list registration processing request packet.

26. (No Amendment)

The information processing method according to claim 24, characterized in that:

the packet generation and transmission process step transmites the access control list registration processing request packet by broadcast transmission or multicast transmission.

Art 19

27. (Amended)

A computer program for executing a process of generating an access control list, characterized by comprising:

a reception step of connecting to a network to which a plurality of devices are connected, and receiving a packet from a client that serves as an access requesting apparatus;

a registration permission judgment step of judging whether or not there is an empty slot in a MAC list in which information of a MAC list for one client is set as registration data for one slot; and

a registration processing step of acquiring data containing a client MAC address from the received packet and executing a registration process for the MAC list, in accordance with a judgment at the registration permission judgment step that there is the empty slot.

28. (Amended)

A computer program for executing an information processing method for an information processing apparatus that serves as a client for executing an access request to a server connected to a network, characterized by comprising:

a trigger detection step of detecting an activation of a communication process in the network based on a power-on process of the information processing apparatus or a specific application activation process; and

a packet generation and transmission process step of generating and transmitting an access control list registration processing request packet explicitly indicating a registration request in a MAC list possessed by the server, under a condition that the trigger information is detected, by storing own MAC address in header information.

art 19